

amended. There is no amendment to claims 7, 74, 83-85, 93, 94, 103, 104 and 109, and claims 42-45, 50-59, 70, 71 and 86 are cancelled. Accordingly, upon entry of the amendments, eighty-six (86) claims remain pending in the application, of which ten (10) claims are independent.

Marked-up versions of replacement paragraphs in the specification and amended claims are provided on separate pages following the amendments and show the changes relative to the previous version of the paragraphs and claims, respectively.

***Amendments to the Specification:***

Please replace the paragraph beginning on line number 17 of page 23 of the specification, with the following replacement paragraph:

C1 **FIG. 3** is a depiction of a golf course mapping process. In this depiction, as an example of a golf course feature to map, a user **25** walks the perimeter **26** of green **27** to construct a vector image display **28** of the actual green **27** in real time on the display **28** of the display module **1A**. It should be understood that the following procedure is also used on bunkers, water hazards, fairways, tee boxes and other golf course features. When the software mapping process is started, the current location (Latitude and Longitude (Lat/Lon)) of the receiver **52** is logged as a new vertex **29** in the RAM of the display module **1A**. The vertex **29** is also displayed on the display **28** at the same moment it is logged. Following that, locations or vertexes are logged approximately once per step or pace of the user at a pre-determined time interval (each second is operable).

Please replace the paragraph beginning on line number 11 of page 24 of the specification, with the following replacement paragraph:

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The GPS mapping software of the present invention provides the user the ability to move errant vertexes 35 into a position on the display that more correctly represent the perimeter of the course attribute being mapped. This is an opportune time and place to make corrections to the data since the user has just traversed the object and knows its approximate shape. On the display 28 of the Display Module 1A, as a stylus is touched to a vertex 29 and it is dragged to a location that better defines the shape that was just mapped, the attached rays 30 follow. When the stylus is removed from the Display Module 1A, the new vertex location 35A is logged in place of the old one.

Please replace the paragraph beginning on line number 19 of page 24 of the specification, with the following replacement paragraph:

To help the user know which vertexes may be errant, each vertex box or dot may be a specific shape or color to represent a confidence level in its respective accuracy. Errant vertexes 35 as depicted in FIG. 3 are sometimes readily identified as not matching the contour of the feature just mapped on the golf course. However, other times it is not clear to the user which vertex needs to be moved.

Please replace the paragraph beginning on line number 24 of page 24 of the specification, with the following replacement paragraph:

To aid in this decision, a display module 1A with a color display 28 (depicted in Fig. 1) would display each vertex block or dot 29 with an assigned color indicating the quality of the position information at that vertex. The indicator may be black, green, yellow or red. The color could be based on real time values for differential correction quality, number of satellites tracked

C2  
concl.

and HDOP. However, the color could also be determined by relative differential correction quality, number of satellites tracked and HDOP. In other words, immediately upon completing the mapping of the perimeter 26 of the green 27, the list of data logged for each vertex 29 and 35, including differential correction quality, number of satellites tracked and HDOP, is analyzed and colors assigned to vertexes to indicate which vertexes have the highest confidence level for relative accuracy. For example, if the NMEA GGA data string were logged to the palm-held computer RAM for each vertex 29 and 35 of the green 27 then the GGA data set for the green 27 could be analyzed and colors assigned to each displayed vertex 29 and 35 based on its quality level within the data set. A black block could indicate good quality differential correction, maximum satellites used and a low horizontal dilution of precision (HDOP). A green block could indicate good quality differential correction, a moderate number of satellites used and a moderate horizontal dilution of precision (HDOP). A yellow block could indicate good quality differential correction with moderate age or a moderate number of satellites used and a higher HDOP. A red block could indicate no differential correction or very old differential correction or a low number of satellites used or a high HDOP. A low number of satellites in some cases does not necessarily indicate a degraded location accuracy. However, in a dynamic mapping application where foliage obstruction may block signals from the GPS satellites and cause the number of satellites in use to fluctuate or be substantially reduced, it is important to consider satellite number in deciding which vertex or vertexes to manipulate.

Please replace the paragraph beginning on line number 19 of page 27 of the specification, with the following replacement paragraph:

C3  
Another compatible aerial imaging method is to fly at a low altitude and collect multiple images along parallel paths across a golf course until the entire course is imaged. Each time the shutter of the camera is activated a dGPS location is logged. The image and location data is then processed in a GIS where it is mosaiced and automatically georectified as understood in the art. Course features are then traced as described above.

Please replace the paragraph beginning on line number 13 of page 32 of the specification, with the following replacement paragraph:

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In addition, it is projected that position information gathered while mapping a course can be uploaded to the web site for differential post processing to improve on real-time dGPS-only map quality. The uploaded position data, corresponding satellite data from a nearby CORS reference station and post processing software may be used to fix vertexes or points that may have been recorded with old differential real-time data or no differential data.

Please replace the paragraph beginning on line number 17 of page 40 of the specification, with the following replacement paragraph:

**Point**

C5  
When "Point" is pressed the current location is logged. Immediately following this, the user is prompted for a note to define the point.